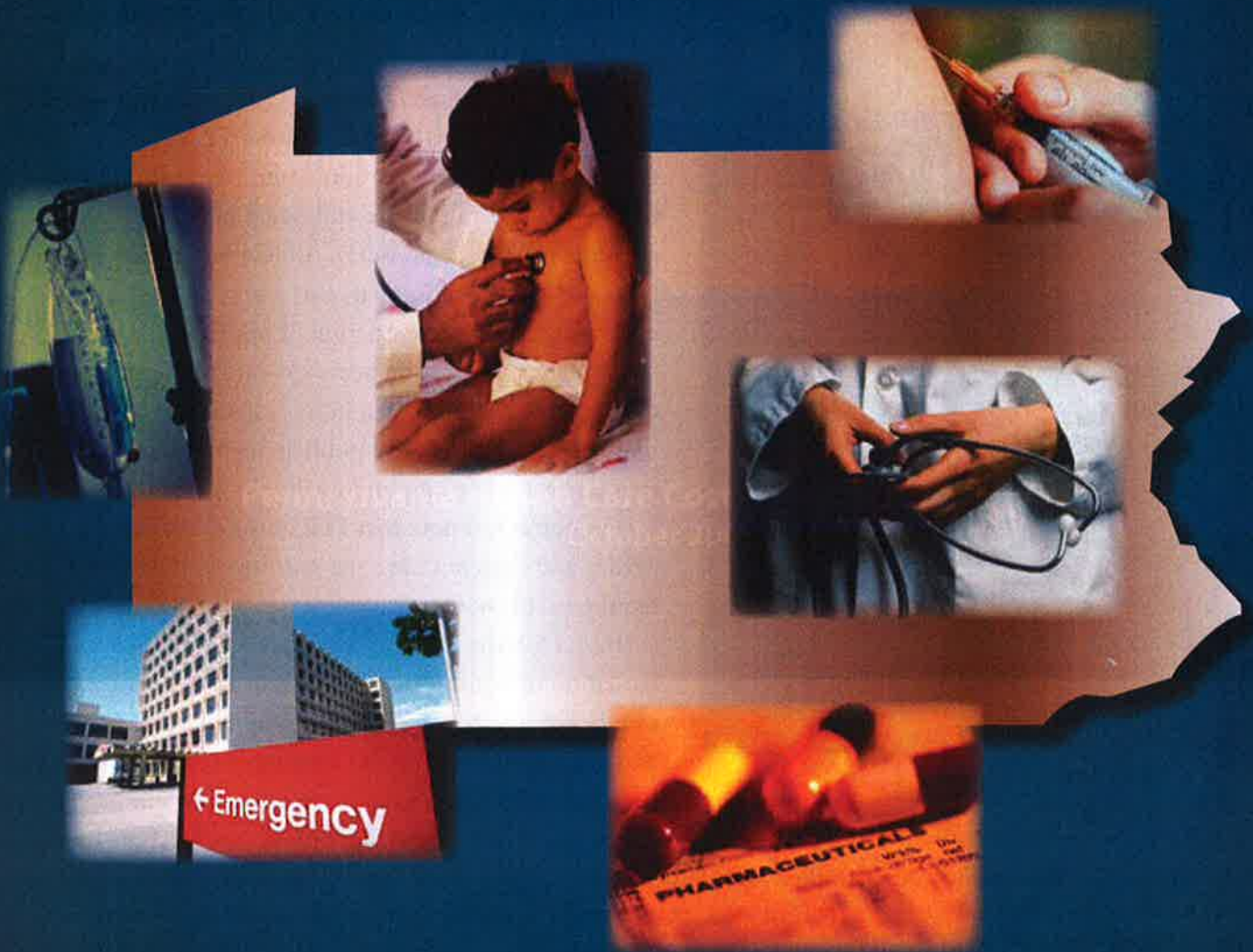


CRITICAL CONDITION

The State of Health Care in Pennsylvania



Pennsylvania Health Care Cost Containment Council
October 2007

Critical Condition: The State of Health Care in Pennsylvania

Over 20 years ago, in the Pennsylvania Health Care Cost Containment Council's (PHC4's) enabling legislation of 1986, the Pennsylvania General Assembly cited "a major crisis because of the continuing escalation of costs for health care services." This crisis, which continues at unsustainable levels, still looms large both in Pennsylvania and across the rest of the nation. In fact, by 2016, health care is expected to account for \$1 of every \$5 spent in the United States.¹

Critical Condition: The State of Health Care in Pennsylvania is an attempt to address the nature of this crisis by discussing various concerns about the health care system that are embodied in Act 89 (as amended by Act 14 of 2003). PHC4 has undertaken this effort as part of its charge to report to the General Assembly on the escalation of health care costs in the state, as well as on access-to-care and quality-of-care issues. PHC4 is an independent state agency that collects, analyzes and publicly reports information relative to the cost and quality of health care. It is important to note that PHC4 is a data-driven agency and does not have the statutory authority to require health system change.

In Act 89, the General Assembly found that the escalation of health care costs was "attributable to a number of interrelated causes, including...the absence of a concentrated and continuous effort in all segments of the health care industry to contain health

care costs." The analysis and comparisons contained in this report lead to the inescapable conclusion that while there have been numerous, well-intentioned efforts to control health care costs over the past ten years, those efforts have been largely unsuccessful. Thus, the health care crisis has persisted and has resulted in increasingly damaging consequences to the state's economy and health status of its citizens.

The purpose of this report is not to point blame at any particular segment of the health care industry but to show the interrelated causes at play. This report is a departure from most PHC4 publications,

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PHC4 wishes to thank David B. Acker, former Chair of PHC4's Education Committee, for his contributions to this publication. His thoughtful guidance, leadership and input were essential in spearheading this new report.

Executive Summary

which typically present detailed information about specific health care issues. Instead, it provides a global understanding of key health care trends and focuses on the “big picture” with respect to what has happened: How much did we in Pennsylvania spend on health care, what did we spend it on, where did the money go and what did we get in return?

While the report does not touch upon every related subject, it gives policymakers, providers, consumers and other stakeholders an overview of major trends. Topics addressed include health care spending, health insurance coverage, provider and insurer finances, supply and utilization trends and health status. Whenever possible, the report offers then-and-now comparisons – for instance, what the state of health care was in 2005 versus 1995.

Unfortunately, the report shows that many of the state’s emergent trends have not been positive. For example, as health care costs have consistently increased over the past ten years, the number of people covered by traditional employment-based health insurance has declined. The number of uninsured has increased, as has the number enrolled in Medicaid and other government programs – all of which increase financial pressure on provider bottom lines and state tax dollars. Additionally, as the state’s population becomes increasingly older, Medicare under-reimbursements to hospitals, combined with a shrinking commercial insurance base, have weakened hospitals’ financial pictures, placing small to medium-size community hospitals, especially those in rural areas, at risk of becoming an endangered species. These are a few of the trends discussed in this report.

In short, the health care crisis that the General Assembly identified two decades ago has worsened and shows no sign of abating. And like a house of cards approaching collapse, the problems are deeply interconnected, exacerbated by stressors that continue to mount.

Absent a comprehensive national health care strategy, health care stakeholders will be forced to seek new solutions on a state-by-state basis. And unless Pennsylvania acts now, in a coordinated and aggressive fashion, the economy and quality of life of its residents will deteriorate. Health care is the single largest employer in the Commonwealth, and the dependency of the state’s economy on a system which is not economically sustainable without substantial modifications should be of enormous concern to all Pennsylvanians.

State Demographics

Several key demographic characteristics must be considered as a backdrop when examining the state of health care in Pennsylvania. The relatively flat growth in the state’s total population, its proportion of older adults, the number of poor and the rural/urban divide all impact our state’s health care delivery system and will be described throughout the report.

Population Growth:

Pennsylvania’s population only grew by 1.7% from 1995 (12,198,403) to 2005 (12,405,348).²

65 and Older: In 2005, Pennsylvania was the third “oldest” state with 14.6% of its residents 65 and older.³ Only Florida and West Virginia had higher percentages in this age group. Whereas Pennsylvania’s 65 and over population grew by 4.9% from 1990 to 2000, its 85 and over population grew by 38.3% during this ten-year span.⁴

Poverty: In 2005, 11.2% of all Pennsylvanians (1,372,000) were living below the poverty level, and 27.4% (3,353,000) were living below 200% of the poverty level.⁵

Urban and Rural: Despite its large urban population, Pennsylvania had the third largest number of rural residents among all states in 2000.⁶

Key Findings

- **Growth in health care spending.** The growth in health care expenditures in Pennsylvania is outpacing the growth in our economy, our population and the general rate of inflation. This growth, however, is a double-edged sword. Health care is Pennsylvania's largest employer and is especially vital to rural economies. The expenditures by state government on health care exceed \$18.8 billion. Additionally, personal health spending accounted for 16.1% (\$74.5 billion) of the gross state product in 2004. Yet, rising health care costs are an increasing burden for our employers competing in a global economy and our citizens who see medical expenses rising faster than their income.
- **Employment-based health insurance.** The number of Pennsylvanians receiving health insurance through employment decreased by an estimated 450,000 people from 2000 (8,569,000) to 2005 (8,119,000). Employer-based health insurance premiums for family coverage increased from \$6,721 per employee in 2000 to \$11,801 in 2006. This decline in employer-sponsored coverage, combined with the demands of Pennsylvania's aging population, has put a larger financial burden on our state and federal government.
- **The uninsured.** Despite the increase in the number of Pennsylvanians participating in government-funded health care programs, the percentage of Pennsylvanians without health insurance is increasing. The number of uninsured Pennsylvanians rose by an estimated 291,000 people from 2000 (905,000) to 2005 (1,196,000). Still, the rate of uninsured in Pennsylvania continues to remain below the national average.
- **Uncompensated care.** Despite the growth in the uninsured population, uncompensated care – the portion of total hospital care that must be written off as bad debt or charity care – has remained relatively constant. However, hospitals annually absorb over a half-billion dollars in foregone revenue. The cost of this care is partially passed on to private payors.
- **Cost shifting.** While the number of Pennsylvanians receiving health insurance from governmental programs has increased and those receiving insurance from commercial insurance has decreased, commercial insurers pay an increasing percent of health care costs. The failure of governmental insurers to pay for the increasing cost of care has shifted costs to the commercial payors, and is partly responsible for the decline in employees accessing health insurance through employment.
- **Economic viability of hospitals.** Statewide general acute care (GAC) hospital profits nearly doubled in the last 10 years, rising from \$761 million in FY95 to \$1.3 billion in FY05. The largest proportion of these profits has centered around large, urban tertiary care medical centers. According to generally-accepted industry standards, an economically viable hospital should produce an operating profit of at least 2% and a total margin of at least 4%. However, 67% of the state's hospitals operated with total margins below 4% for the three-year period from FY03 to FY05. During the same three-year period, 34% of all hospitals had a bottom line loss, compared to 22% in the three-year period from FY95 to FY97. In short, more than one-third of all hospitals

Key Findings

are presently in significant financial distress, and two-thirds are performing at levels considered below long-term economic viability.

- **Aging plant.** In order to maintain economic viability, GAC hospitals must have a certain level of profit to reinvest in property, plant and equipment as it ages and to invest in new technology necessary for modern care. While financially healthy hospitals have been able to make investments in their facilities and equipment, many hospitals find improvements in new technology, access to capital, and the upgrading of old equipment very challenging. In general, the average age of Pennsylvania's hospital facilities and equipment is increasing and aging beyond the national average.
- **Outpatient care.** The migration of outpatient diagnostic and surgical (D&S) procedures to the burgeoning number of ambulatory surgical centers (ASCs) is contributing to increases in capacity and utilization. While these predominately physician-owned ASCs may be improving the efficiency of the delivery of outpatient D&S care, they are siphoning income away from GAC hospitals – income that has traditionally supported many essential hospital services.
- **Health care workforce.** While there is no consensus on the adequacy of physician supply in Pennsylvania, there is a shortage of nurses and other health care workers. For example, the projected growth in the shortage of nurses – the largest segment of health care workers – may have a significant effect on future access and quality of care.
- **Chronic disease.** Three-quarters (75%) of the health care costs in Pennsylvania can be traced to the 25% of patients with chronic illness. Continuing to expand disease management and preventive care will improve the quality of life for a portion of the population and could help to reduce hospitalizations and restrain associated costs. Lifestyle changes that reduce obesity, cigarette use, and other health risks may help to restrain rising health care utilization and costs related to chronic disease.
- **Health status.** Some measures of the population's health status have worsened. From 1995 to 2005, the percent of adult Pennsylvanians considered overweight or obese rose from 54% to 62%. The percent of adults considered obese rose from 16% to 25%. The number of adults who were told that they have diabetes rose from approximately 6% (57 per 1,000) to 8% (81 per 1000). This level of decline in key health status indicators is alarming since Pennsylvania's personal health care spending rose from \$45 billion in 1995 to \$74.5 billion in 2004.
- **The case for public reporting.** Pennsylvania is one of the pioneering states in developing public reporting of hospital performance. During Pennsylvania's years of public reporting, hospitals and physicians have achieved large reductions in patient mortality for a broad range of procedures and diseases. In fact, since PHC4 began publicly reporting patient mortality rates for Pennsylvania hospitals, in-hospital mortality rates for all conditions dropped from significantly above to significantly below the national average.

Health Care & the Pennsylvania Economy

The health care industry is the state's leading employer.

Pennsylvania's personal health care spending was more than 16% of the gross state product in 2004.

Health care as an industry is integral to Pennsylvania's economy. The health care and social assistance sector was the state's leading employer in 2005.⁷ Health care and social assistance jobs (912,867 jobs) comprised 12.8% of Pennsylvania's total jobs, ahead of retail (11.6%), government and government enterprise (11.4%) and manufacturing (10.0%). Ten years earlier, health care and social assistance only comprised 11.4% of the state's total jobs.⁸ Nationally, health care and social assistance ranked as the third largest employer in 2005, behind government and the retail sector.⁹ Health care and social assistance are included in the same sector due to difficulties in distinguishing between the boundaries of the two activities; the services provided in this sector are delivered by health practitioners or social workers.

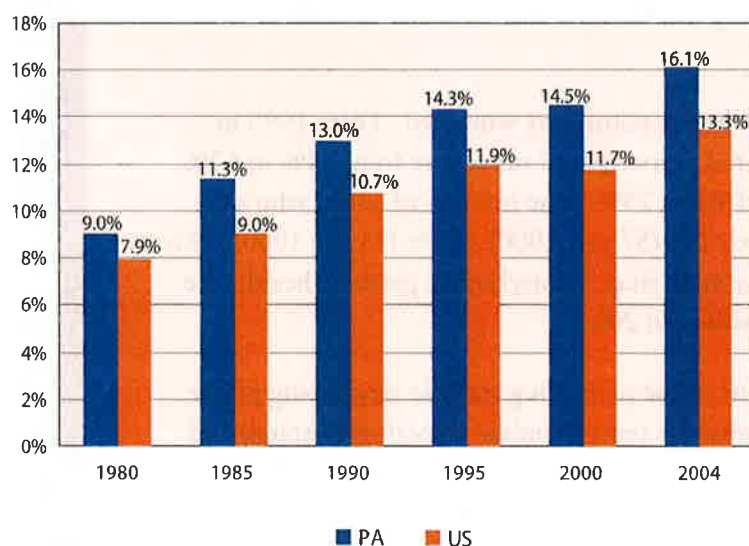
In 2005, hospital employees alone topped 275,000.¹⁰ While the role of hospitals as employers is significant statewide, hospitals are vitally important to rural economies. Over 90% of rural hospitals are among their communities' three largest employers.¹¹

In FY03, the Commonwealth of Pennsylvania's expenditures on health care, including federal and state funding, exceeded \$18.8 billion.¹² Most of the spending supports Medicaid, the state's health

insurance program for low-income people. The state's Children's Health Insurance Program (CHIP), state employees' health benefits, corrections health care, medical education, medical liability, and public health are among the other expenditures.

Additionally, total personal health care expenditures account for a significant and growing portion of Pennsylvania's Gross State Product (GSP). In 2004, total personal health care expenditures accounted for 16.1% of the GSP, up from 11.3% in 1985.¹³ While health care is also a major contributor to the U.S. economy, total personal health care expenditures accounted for only 13.3% of the Gross State Product for the United States in 2004.

Total Personal Health Care Expenditures as a Percent of Gross State Product



Source: Centers for Medicare & Medicaid Services

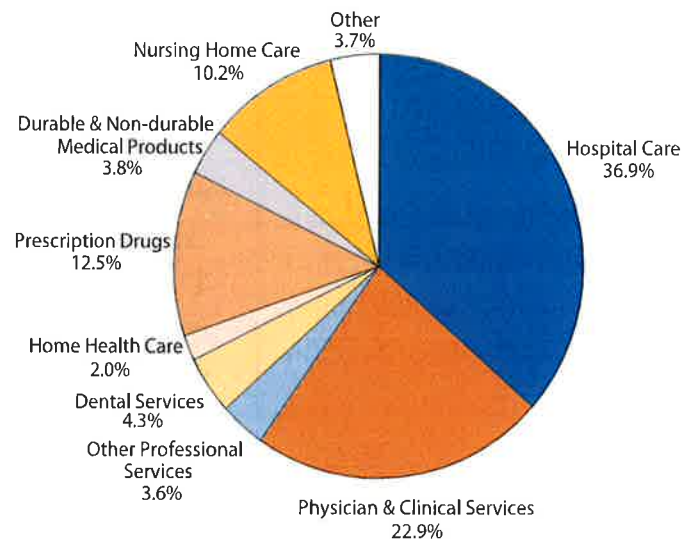
Note: Gross State Product for the U.S. equals the sum of Gross State Product in all states.

Health Care Spending

From 1995 to 2004, Pennsylvania personal health care expenditures increased by 65% from \$45.0 billion to \$74.5 billion.¹⁴ During this same period, personal health care expenditures in the nation rose 80%. Still, it is important to point out that the U.S. population grew by 10% during this time while Pennsylvania's grew less than 2%.¹⁵

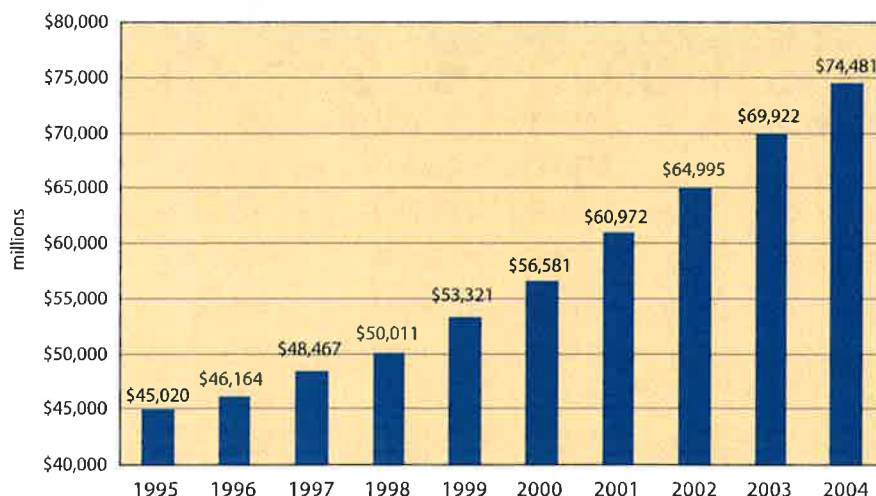
In 2004, the largest components of personal health care expenditures in Pennsylvania were hospital care (36.9%), physician and clinical services (22.9%), prescription drugs (12.5%) and nursing home care (10.2%).¹⁶ As a percentage of Pennsylvania's total personal health care expenditures, hospital care dropped by 14% and prescription drugs increased by 64% from 1995 to 2004.

**Distribution of
Personal Health Care Expenditures
Pennsylvania, 2004**



Source: Centers for Medicare & Medicaid Services
Note: Numbers may not add up due to rounding.

**Pennsylvania Personal Health Care Expenditures
1995-2004**



Source: Centers for Medicare & Medicaid Services

Personal health care spending in Pennsylvania rose 65.4% from 1995 to 2004 – from \$45 billion to \$74.5 billion.

Health Care Spending

The prescription drugs category has seen the steepest increase among all categories of personal health care spending.

The largest increases from 1995 to 2004 were seen in hospital care (+42%), physician and clinical services (+70%), prescription drugs (+172%), and nursing home care (+67%).¹⁷ Since hospital care, physician services and nursing home care also include prescription drugs administered, part of the increases in these sectors can be attributed to prescription drugs.

The tremendous growth in health care spending is also evident on a per capita basis. Nationally, per capita personal health care expenditures were \$5,598 in 2005, an increase of almost 54% from \$3,647 in 1998.¹⁸ Adding in non-personal health care expenditures (which include such things as government administration, the net cost of private health insurance, public health activities and investments in research, structures and equipment), per capita health care spending reached \$6,697 in 2005.

In 2004, Medicare paid for 21.8% of Pennsylvania personal health care expenditures, and Medicaid paid for 17.2%.¹⁹ Private insurance, out-of-pocket payments and other public and private programs accounted for the remainder. Compared to the United States as a whole, Pennsylvania had a slightly larger portion of Medicare personal health care expenditures in 2004.

Pennsylvania Personal Health Care Expenditures* (in millions)

	Pennsylvania			U.S.
	1995	2004	% Increase	% Increase
Total Personal Health Care	\$45,020	\$74,481	65%	80%
Hospital Care	\$19,331	\$27,504	42%	66%
Physician & Clinical Services	\$10,041	\$17,072	70%	79%
Other Professional Services	\$1,647	\$2,658	61%	84%
Dental Services	\$1,916	\$3,232	69%	83%
Home Health Care	\$1,168	\$1,518	30%	40%
Prescription Drugs	\$3,415	\$9,278	172%	212%
Other Non-Durable Medical Products	\$1,202	\$1,809	50%	28%
Durable Medical Products	\$685	\$1,036	51%	51%
Nursing Home Care	\$4,555	\$7,594	67%	55%
Other Personal Health Care	\$1,061	\$2,781	162%	132%

*Does not include other health expenditures such as government administration, the net cost of private health insurance, government public health activities, or investment in research, structures and equipment.

Source: Centers for Medicare & Medicaid Services
Note: Numbers may not add up to totals due to rounding. A portion of the increase in health care expenditures can be attributed to general inflation. The increase in the Consumer Price Index for All Urban Consumers (CPI-U) between 1995 and 2005 was 28.8% in the U.S., 28.7% in the Philadelphia area and 27.2% in the Pittsburgh area. (U.S. Dept. of Labor, Bureau of Labor Statistics)

Health Insurance Coverage

Another disturbing trend is that an estimated 450,000 fewer Pennsylvanians had job-based health insurance in 2005 than 2000.²⁰ In 2005, 66.1% of all Pennsylvanians were covered by job-based plans, down from 71.6% five years earlier. Nationally, an even smaller percentage (60.2%) of persons had job-based coverage in 2005.

As expected, with job-based coverage on the decline, persons covered by government programs increased. The number of Pennsylvanians covered by Medicare, Medicaid and military health care grew by 18.9% from 2000 to 2005.²¹

While Pennsylvania's uninsured rate is lower than the nation's, it did increase from 7.6% in 2000 to 9.7% in 2005.²² In addition to the 1,196,000 Pennsylvanians without health insurance, an undetermined number are underinsured. Underinsured people have some coverage, but are not adequately protected against catastrophic health care bills. Nationally, an estimated 16 million adults were underinsured in 2005.²³

Pennsylvania's uninsured rate among low-income children is also lower than the nation's. Of Pennsylvania children below 200% of poverty, 14.5% (156,000) were not covered by health insurance in 2005.²⁴ Nationally, 18.3% were not covered. Unfortunately, most of these children are eligible for public health coverage, but remain unenrolled because of a lack of awareness about eligibility, administrative barriers and other factors.

Persons Without Health Insurance

Year	Pennsylvanians without Health Insurance		U.S. Percent without Health Insurance
	Number	Percent	
1995	1,195,000	9.9	15.4
2000	905,000	7.6	14.0
2005	1,196,000	9.7	15.3

Source: U.S. Census Bureau

Note: All figures are estimates. In March 2007, the Census Bureau released revised coverage estimates for 2005 based on an enhancement to the process that assigns coverage to dependents. The 2005 data in this table reflects this enhancement. Revised figures for 1995 and 2000 have not been released yet.

Health Insurance Coverage in Pennsylvania - by Type of Insurance

		2000		2005	
		Number	% of Total Persons	Number	% of Total Persons
Private Insurance	Any private plan	9,780,000	81.7%	9,469,000	77.1%
	Employment-based	8,569,000	71.6%	8,119,000	66.1%
	Direct-purchase	NA		1,408,000	11.5%
Government Insurance	Any government plan	2,781,000	23.2%	3,306,000	26.9%
	Medicare	1,693,000	14.1%	1,930,000	15.7%
	Medicaid	1,100,000	9.2%	1,452,000	11.8%
	Military health care	210,000	1.8%	229,000	1.9%
No Insurance	Not covered at any time during the year	905,000	7.6%	1,196,000	9.7%

Source: U.S. Census Bureau

Note: Some persons are covered by more than one source. In 2005, 10.4% of persons were covered by both Medicare and private insurance, 3.0% were covered by Medicaid and private insurance, and 1.6% were covered by Medicare and Medicaid. All figures are estimates. In March 2007, the Census Bureau released revised coverage estimates for 2005 based on an enhancement to the process that assigns coverage to dependents. The 2005 data in this table reflects this enhancement. Revised figures for 2000 have not been released yet.
NA - Not available

Health Insurance Costs

On average, health insurance premiums for Pennsylvania families increased by 75.6% from 2000 to 2006.

Premiums for family coverage rose 5.7 times faster than median earnings from 2000 to 2006.

For employers and workers alike, the cost of health insurance continues to be a growing concern. Increases in the nation's employer health plan premiums consistently outpace overall inflation and workers' earnings. Premiums for family coverage increased by 9.2% in 2005.²⁵ Despite the fact that this was the first year of single-digit increases in five years, it still exceeded both the overall inflation rate and the increase in workers' earnings by about 6%.

In Pennsylvania, families and businesses are feeling the burden of increases in employer-based health insurance premiums. One study found that the average annual premium for family health coverage in Pennsylvania increased from \$6,721 in 2000 to \$11,801 in 2006 – a 75.6% increase.²⁶ For family coverage, the employer share in premium spending went up 73.2%, and the employee share went up 85.6%. Since median earnings for Pennsylvania families only increased by 13.3% during this same time period, that means premiums grew 5.7 times faster.

Premiums for individual coverage saw similar increases. From 2000 to 2006, the average annual premium for individual health coverage in Pennsylvania increased 71.7% from \$2,467 to \$4,236.²⁷ For individual coverage, the employer share in premium spending went up 65.8%, and the employee share went up 104.7%.

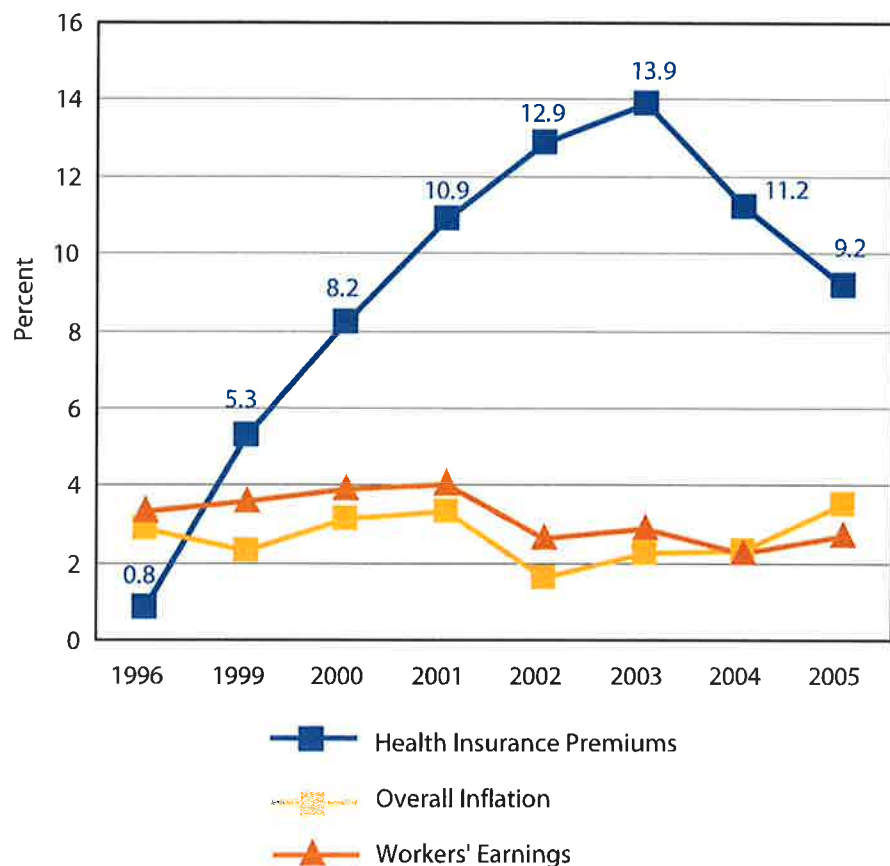
**Employer-based Health Insurance Premiums for Family Coverage
Pennsylvania, 2000-2006**

Premiums by Source of Payment	2000	2006	Dollar Change	Percent Change
Total Premium Spending per Worker (Employer and Worker Share)	\$6,721	\$11,801	\$5,080	75.6%
Share of Premium Paid by Employer	\$5,424	\$9,394	\$3,970	73.2%
Share of Premium Paid by Worker	\$1,297	\$2,407	\$1,110	85.6%

Source: Families USA, *Premiums versus Paychecks: A Growing Burden for Pennsylvania's Workers*

Health Insurance Costs

Increases in the Nation's Employer Health Plan Premiums Compared to Other Indicators, 1996-2005



Nationally, the 9.2% increase in employer health plan premiums in 2005 exceeded both the overall inflation rate and the increase in workers' earnings by about 6%.

Increases in:	1996	1999	2000	2001	2002	2003	2004	2005
Health Insurance Premiums	0.8	5.3*	8.2*	10.9*	12.9*	13.9	11.2*	9.2*
Overall Inflation	2.9	2.3	3.1	3.3	1.6	2.2	2.3	3.5
Workers' Earnings	3.3	3.6	3.9	4.0	2.6	3.0	2.1	2.7

Source: Kaiser Family Foundation

* Estimate is statistically different from estimate for the previous year shown ($p < .05$). No statistical tests are conducted for years prior to 1999.

Note: Data on premium increases reflect the cost of health insurance premiums for a family of four. The average premium increase is weighted by covered workers.

From 2001 to 2005, the total after-tax net income realized by Pennsylvania health insurers collectively grew from almost \$462 million to \$810 million.²⁸ During this same period, their collective income margins increased from 2.51% to 3.30%. Their medical loss ratio – the percentage of dollars these companies spend on health care – decreased from 87.08% to 85.00%.

The reserve and surplus levels of Pennsylvania's health insurers have been the subject of public debate in recent years. The words "reserve" and "surplus" are sometimes used interchangeably when, in fact, they have very different meanings.

Reserves are funds that are maintained to pay for claims that have been incurred but not yet paid. Having adequate funds to pay forthcoming claims expense is recognized as a liability on insurance company balance sheets. *Surpluses* represent an insurer's "net worth" or "net capital" after all of its liabilities have been recognized. Surpluses can be used to support investment needs and to help insurers through adverse business conditions and catastrophic events.

The surplus level maintained by Pennsylvania's health insurers grew from nearly \$5.6 billion in 2001 to \$8.5 billion in 2005.²⁹ Following an investigation, the Pennsylvania Insurance Department issued a decision in February 2005 determining that the Pennsylvania Blue plans were not operating with excess surplus.³⁰

Pennsylvania Health Insurer Finances

	2001	2005
Total Revenue	\$18,422,440,355	\$24,522,346,392
Net Income (after taxes)	\$461,866,607	\$809,929,560
Net Income Margin	2.51%	3.30%
Premium Revenue	\$18,406,288,194	\$24,509,866,491
Total Medical & Hospital Expenses	\$16,027,669,873	\$20,832,539,702
Medical Loss Ratio	87.08%	85.00%
Surplus	\$5,582,545,176	\$8,469,743,226

Source: Health Annual Statements filed with the Pennsylvania Insurance Department and the National Association of Insurance Commissioners. The data reflects Pennsylvania-based lines of business for 26 health insurance companies for calendar year 2001 and 28 companies for 2005. This includes commercial plans, as well as not-for-profit Blue Cross/Blue Shield plans. Dental and behavioral health plans were not included.

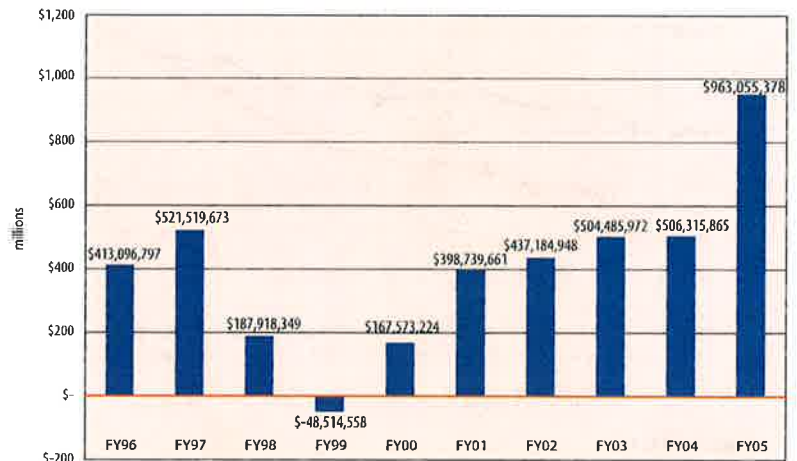
Provider Profits and Margins

In FY05, there was some good news for the state's hospital industry: hospital financial margins in general acute care (GAC) hospitals had risen for the third straight year and were, in fact, at their highest levels in recent history. These higher margins were due in large part to higher statewide operating income, which rose to \$963 million in FY05, a 90% increase from \$506 million in FY04. Most of this growth was derived from the payments made to hospitals by private health insurers.

However, a closer look reveals the financial disparities among Pennsylvania's "have" and "have-not" GAC hospitals. In FY05, 44% (\$428 million) of this unprecedented increase in statewide operating income was earned by the top five money-making GAC hospitals. That's five hospitals out of a total of 177.

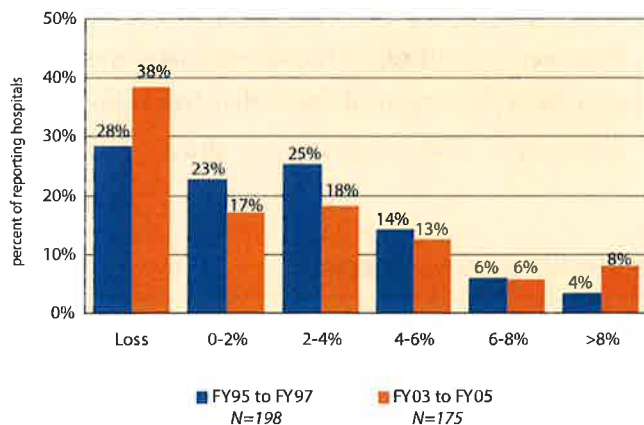
Over the three-year period FY03 to FY05, 59 Pennsylvania hospitals lost money. Fifty-six of those are small to medium-size community hospitals, many of which are in rural areas. In general, these hospitals cannot rely on a larger health system or for-profit corporation for financial support, and will find improvements in new

**Operating Income
Pennsylvania General Acute Care Hospitals
FY96 - FY05**

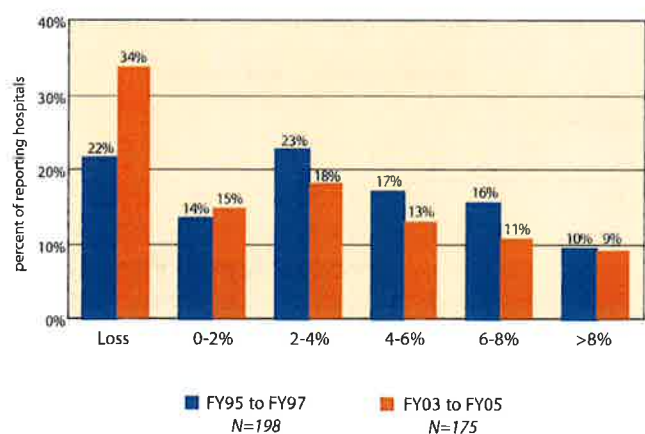


Source: PHC4

**Statewide Distribution of
Three-Year Average Operating Margin
Pennsylvania GAC Hospitals**



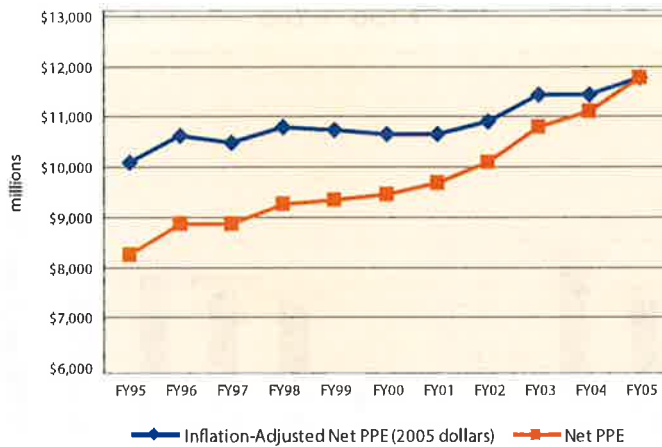
**Statewide Distribution of
Three-Year Average Total Margin
Pennsylvania GAC Hospitals**



Source: PHC4

Provider Profits and Margins

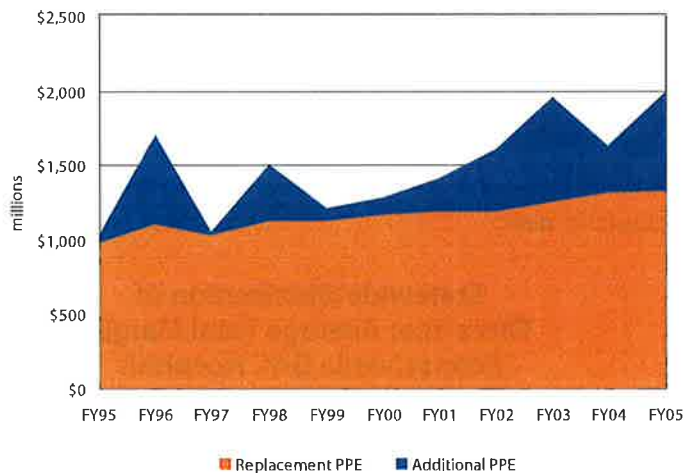
**Property, Plant & Equipment (PPE)
Pennsylvania GAC Hospitals**



Source: PHC4

Note: The inflation-adjusted Property, Plant & Equipment (PPE) helps correct for the effect of inflation on the book value of PPE. Each of the ten years prior to FY05 were converted to 2005 dollars.

**PPE Replacement and Growth
Pennsylvania GAC Hospitals**



Source: PHC4

technology, access to capital, recruitment of new staff (especially nurses and physician specialists), and the upgrading of old or obsolete equipment very challenging. These hospitals also tend to care for disproportionately more Medicare and uninsured patients, which makes it harder to break even.

Since hospitals finance capital acquisitions with their net income, the ability of hospitals to expand or replace their equipment and facilities is dependent on income levels. With the disparities in hospital total margins across the Commonwealth, there are also disparities in the ability of hospitals to make investments in their facilities.

Financially unhealthy hospitals that are posting negative operating margins must spend their depreciation on operating expenses to keep the doors open, instead of saving for necessary equipment replacement or upgrades. Conversely, many of those with historically strong margins are undergoing a building boom.

After adjusting for inflation, Pennsylvania hospitals collectively increased the value of their facilities and equipment by 16.5% from FY95 to FY05. In FY05, they procured about \$2 billion in new property, plant and equipment (PPE). However, two-thirds of those new assets were actually replacement of assets that had been depreciated. The remaining one-third – \$655

Average Age of Plant (Years) - Pennsylvania GAC Hospitals

	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
PA	9.2	8.2	9.6	9.3	9.7	10.0	10.6	11.0	11.3	11.5	12.0
U.S.	8.8	8.9	9.2	9.3	9.2	9.4	9.7	9.8	9.8	9.8	9.8

Sources: PHC4, American Hospital Association

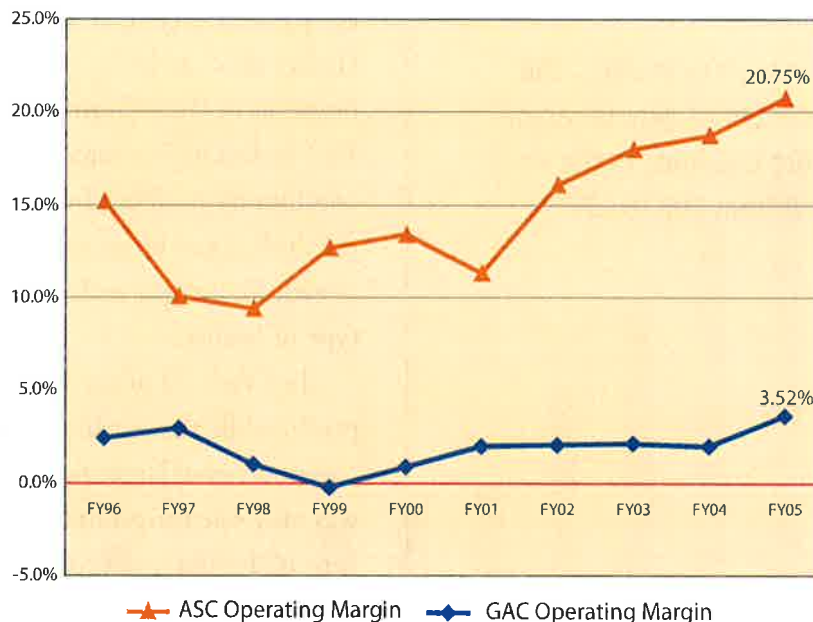
Provider Profits and Margins

million – was additional facilities and equipment.

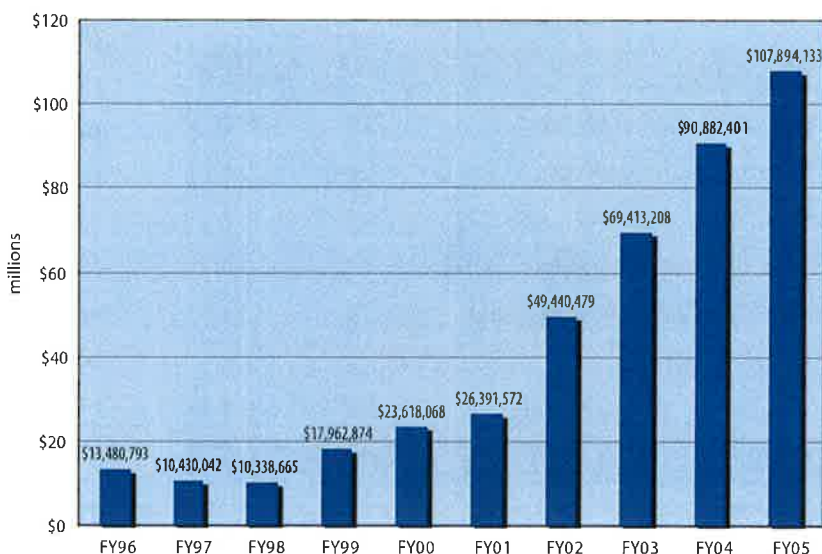
Also relevant to this “have/have-not” discussion is the fact that Pennsylvania’s PPE is getting older and is aging more rapidly than the rest of the nation. In FY05, the most recent year that national data is available, the average age of hospital facilities and equipment in Pennsylvania was 2.2 years older than the national average.³¹ The average age of plant at Pennsylvania hospitals has increased by nearly three years from 9.2 years in FY95 to 12.0 years in FY05. This suggests that hospitals as a group have slowed their acquisitions and upgrades of facilities and equipment. Therefore, despite the media attention given to hospital expansions in parts of the state, not all are able to do so.

Just as there are financial disparities between Pennsylvania’s hospitals, there are marked financial differences between its GAC hospitals and ambulatory surgery centers (ASCs). In FY05, the statewide pre-tax operating margin for ASCs (20.75%) was almost six times greater than the statewide operating margin for GACs (3.52%). ASCs are no longer the relatively minor presence they were a decade ago. In fact, operating revenues for ASCs increased by more than 700% from FY96 (\$13.5 million) to FY05 (\$107.9 million).

Average Operating Margins - Ambulatory Surgery Centers and General Acute Care Hospitals Pennsylvania, FY96-FY05



Operating Income - Ambulatory Surgery Centers Pennsylvania, FY96 - FY05



Source: PHC4

Note: The operating income shown in this graph is for reporting facilities only. In FY96, 21 of the 44 ASCs did not report, and in FY05, 43 of the 177 ASCs were too new to report, and one was non-compliant.

Supply & Utilization Trends

From 1995 to 2005, the number of general acute care hospitals in the state fell from 206 to 177.

General Acute Care Hospitals

Hospitals are vitally important community institutions, for the patients they treat, the people they employ and the economic vitality they can bring. Yet, the number of general acute care (GAC) hospitals in Pennsylvania fell from 206 in 1995 to 177 in 2005. This 14.1% decline is greater than the nation's 5.0% decline in number of community hospitals from 1995 to 2005.³² In Pennsylvania, not all of the decline can be attributed to hospital closures. Eight GAC hospitals closed, 22 merged with another GAC, and four converted into another type of facility.

In FY05, 20 of the 177 GAC hospitals in Pennsylvania were for-profit, while the rest functioned solely as non-profit organizations or as components of larger non-profit organizations. Ten years earlier, there was only one for-profit hospital in the state. Whereas all income or "profit" from a non-profit hospital's operations is retained within the organization and used as reinvestments or reserves, for-profit hospitals may distribute a portion of their income to shareholders as dividends.

From FY95 to FY05, the number of staffed beds in Pennsylvania GAC hospitals fell from 48,114 to 37,351 – a 22.4% reduction. In 2005, there were 3.19 beds per 1,000 persons – higher than the national rate of 2.71 beds per 1,000 persons.³³ In Pennsylvania, the average occupancy rate rose from 65.5% in FY95 to 71.4% in FY05, while the number of total inpatient days declined from 11.42 million to 9.67 million during the same time period. Overall, hospital stays have been getting shorter – the average length of an inpatient stay (ALOS) has declined every year since FY95.

**Number of Facilities in Pennsylvania
by Facility Type**

Facility Type	1995	2005
General Acute Care Hospitals	206	177
Rehabilitation Hospitals	20	21
Psychiatric Hospitals	23	17
State Psychiatric Hospitals	11	9
Long-Term Acute Care Hospitals	4	24
Specialty Hospitals	8	6
Ambulatory Surgery Centers	44	177
Total	312	431

Source: PHC4

The number of ambulatory surgery centers does not include capitalized Class A facilities, which are only registered with and not licensed by the State. As of Dec. 2006, there were only six Class A facilities.

Supply & Utilization Trends

Ambulatory Surgery Centers

While the number of GAC hospitals has declined, there has been dramatic growth in the number of licensed ambulatory surgery centers (ASCs) in Pennsylvania during the last decade. The number of ASCs has quadrupled since FY96, growing from 44 in FY96 to 177 in FY05. Pennsylvania's ASC growth trend is especially pronounced, since the number of freestanding ASCs in the nation more than doubled from 1996 to 2005.³⁴

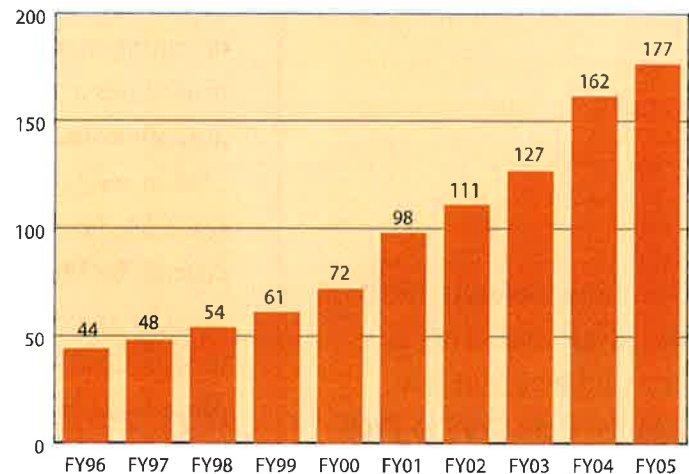
The addition of more facilities to the health care system raises questions about the impact on utilization, costs, quality of care and access to care. Certain regions of the state may have excess capacity, i.e., more health care facilities and services than the population needs.

Studies have shown that increased capacity can increase utilization.³⁵ Pennsylvania's certificate of need (CON) legislation, which regulated the construction of various health care facilities, including ASCs and hospitals, sunsetted in December 1996, and the state has been without such provisions since then.

Outpatient Diagnostic and Surgical Procedures

In the past decade, there has been pronounced growth in the number of outpatient diagnostic and surgical (D&S) cases in Pennsylvania at both ASCs and GACs. There was a 93.7% growth in the total number of D&S cases statewide from FY96 to FY05. While the growth in outpatient D&S cases at ASCs (842.3%) outpaced the growth at GACs (52.1%) during this period, the total growth was split almost evenly between ASCs (47.3%) and GACs (52.7%) [See chart on page 18.] In 2005 alone, ASCs performed one of every four outpatient D&S procedures in the state. The most common procedures performed at Pennsylvania ASCs include colonoscopies and eye surgeries.

Number of Ambulatory Surgery Centers in Pennsylvania



Source: PHC4

Note: Pennsylvania's certificate of need (CON) act sunsetted in December 1996.

The number of ambulatory surgery centers statewide has quadrupled, from 44 in FY96 to 177 in FY05.

Supply & Utilization Trends

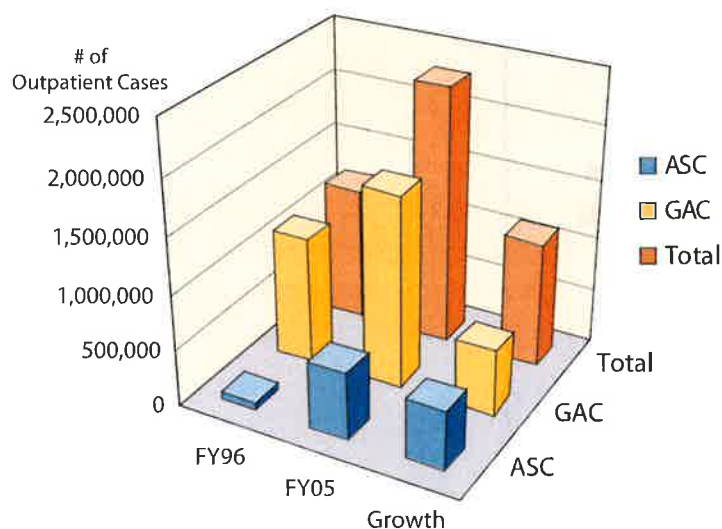
The number of outpatient diagnostic and surgical cases statewide nearly doubled from FY96 to FY05.

As previously mentioned, in terms of profitability, ASCs have become very successful models. In FY05, the statewide pre-tax operating margin for ASCs was six times greater than the statewide operating margin for GACs. Looking at the payor mix between D&S procedures at ASCs and GAC hospitals for FY05, one noticeable difference was in the portion of patients participating in Medicaid. One in ten (10.3%) of GAC outpatients undergoing a D&S procedure was a Medicaid participant, while only 3.1% of ASC patients were covered by Medicaid.

The growth and profitability of ASCs has caused tensions. Even though GAC hospitals still perform the majority of outpatient procedures, hospitals contend that ASCs are draining off important, profitable procedures. This is hard for hospitals to take when they have to underwrite money-losing services and operate on such slim margins.

Another concern generated by ASCs is physician ownership and the role that plays in physician self-referrals. In Pennsylvania, physicians were the majority owners of 65% or 112 of the state's 172 ASCs providing ownership information for FY05. Nationally, 83% of ASCs were owned at least in part by physicians in 2004.³⁶

Growth in Outpatient Diagnostic and Surgical Cases* in Pennsylvania



	Number of Outpatient D&S Cases			% Growth by Facility Type	% of Total Growth
	FY96	FY05	Growth		
ASC	63,120	594,755	531,635	842.3	47.3
GAC	1,136,612	1,728,773	592,161	52.1	52.7
Total	1,199,732	2,323,528	1,123,796	93.7	100.0

Source: PHC4

* Excludes outpatient cases at long-term GAC facilities and specialty hospitals which typically represent about 0.1% of all outpatient cases.

Supply & Utilization Trends

Registered Nurse Supply

The estimated shortage of registered nurses in Pennsylvania is slightly less than the national shortage. In 2005, it was estimated that the supply of full-time equivalent (FTE) registered nurses statewide was 105,900 while demand was 115,000 – an 8% shortage.³⁷ Nationally, the projected shortage in 2005 was 10%.

Given current trends, the Pennsylvania shortage is expected to grow worse. By 2010, the shortage of FTE nurses is projected to be 21,100 or 18%; in 2020, the shortage is projected to be 54,800 or 41%.³⁸

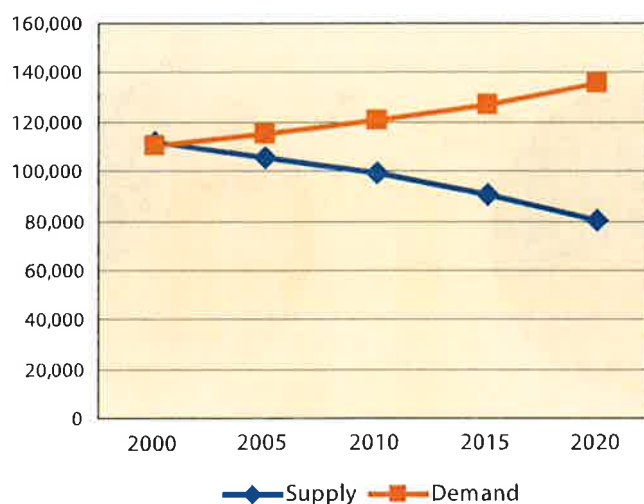
Demand is increasing faster than supply for a number of reasons. Overall population growth and aging population demands are increasing the need for services. Many nurses are at or nearing retirement age. And recruitment and retention in this industry remains challenging.

Since nurses represent the largest group of hospital health care workers, a shortage could potentially affect access to care and quality of care. Recent studies have found low nurse staffing levels are linked to medical errors and poorer patient outcomes.³⁹

Statistics about the number of physicians practicing in Pennsylvania and related manpower issues are not included in this report. This information was left out intentionally as there is strong disagreement about which data sources Pennsylvanians should use to draw conclusions about how many physicians are practicing statewide, how many are trained in Pennsylvania, how many are leaving the state, and what impact supply has on access to care. To develop sound public policy, reliable trend data on these issues should be collected and multi-stakeholder groups should begin working together to address this crucial issue.

**Registered Nurses in Pennsylvania
Projected Supply and Demand, 2000-2020**

	2000	2005	2010	2015	2020	Change from 2000 to 2020
Supply	111,800	105,900	99,200	90,600	80,400	-28%
Demand	110,200	115,000	120,300	127,200	135,200	+23%
Difference	1,600	-9,100	-21,100	-36,600	-54,800	



Source: U.S. Dept. of Health and Human Services, Health Resources and Services Administration (HRSA)

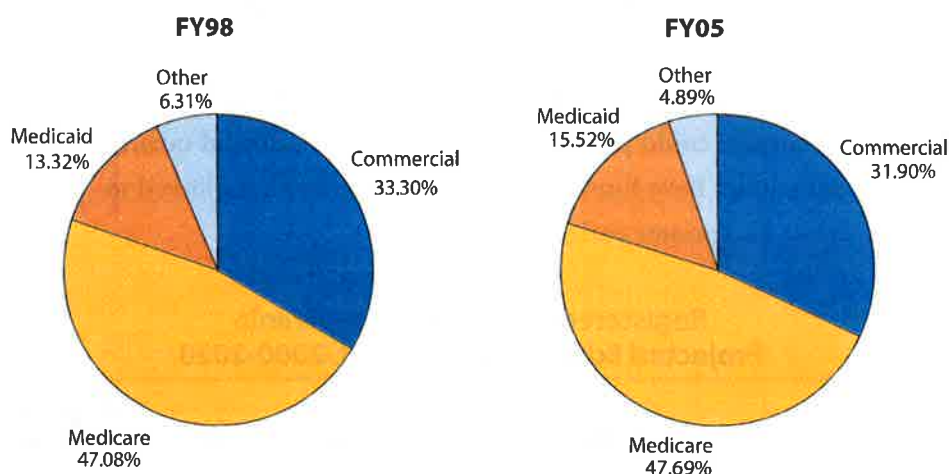
Hospital Revenues & Cost Shifting

Even though Medicare beneficiaries continue to make up the largest share of inpatient discharges, the percent of statewide inpatient revenue from Medicare has dropped from 54.01% in FY98 to 47.25% in FY05.

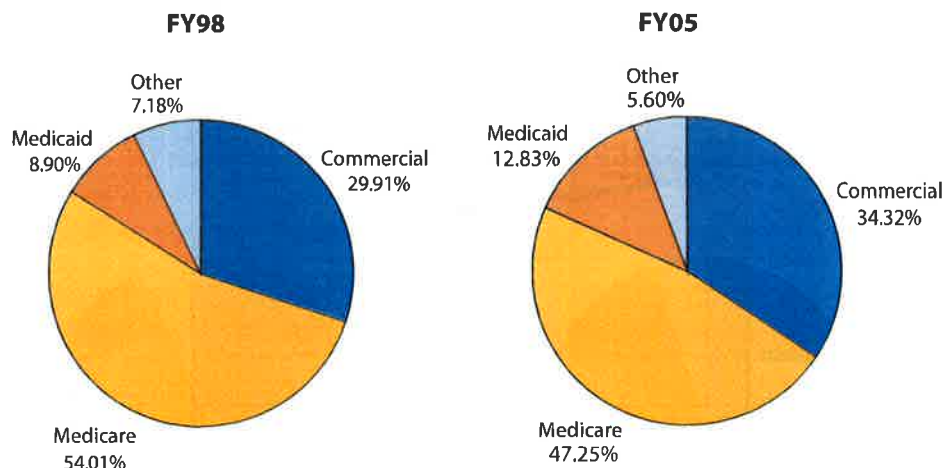
Medicare underpayments for inpatient hospital care present major problems for Pennsylvania and the rest of the nation. Payments from Medicare continue to shrink and the costs of treating Medicare patients (which tend to be the sickest and most expensive) are being shifted to commercial insurers – even though the portion of inpatient discharges covered by Medicare has increased and the portion covered by commercial insurers has decreased.

Despite the fact that commercially insured patients are making up a smaller fraction of total inpatient discharges, the percentage of statewide

Inpatient Discharges by Payor



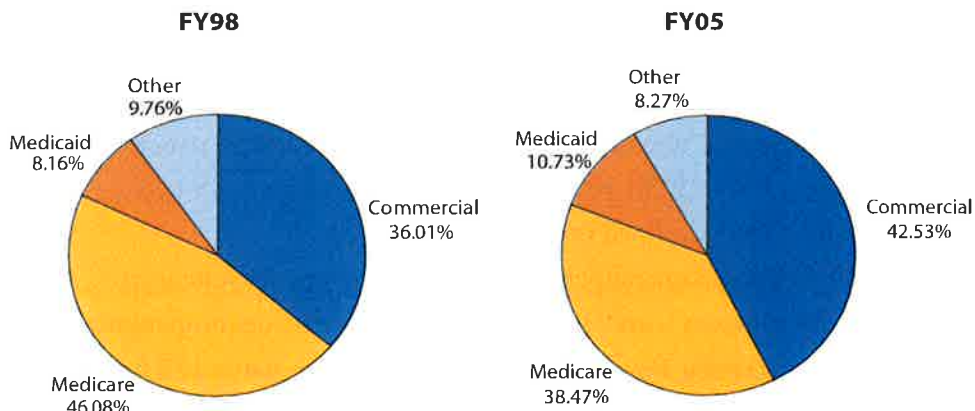
Statewide Inpatient Revenue by Payor - GAC Hospitals



Source: PHC4

Hospital Revenues & Cost Shifting

Statewide Net Patient Revenue by Payor - GAC Hospitals



Source: PHC4

inpatient revenue derived from commercial insurers is going up. From FY98 to FY05, the percentage increased from about 30% to 34%. Conversely, during the same period, the percentage of statewide inpatient revenue derived from Medicare fell from 54% to 47%.

Between FY98 and FY05, commercial insurers surpassed Medicare as the largest payor for general acute care hospital services. FY05 was the sixth straight year that the growth in Medicare revenue lagged behind both the commercial and Medicaid payor categories.

PHC4's financial data suggests that, in FY05, Medicare may have been under-reimbursing by about 16% compared to the average of all payors, and since Medicaid does not account for a large volume of patients, the bulk of the increases in payments is clearly coming from the commercial market. In the end, those increases are not actually paid by health insurance companies; they are passed along to the actual bill payors – Pennsylvania's businesses and labor unions (purchasers) that provide health benefits to their employees and members, and to individuals who pay for their own insurance.

The unintended consequences of this cycle are that purchasers of health benefits are dropping health care coverage as they continue to face skyrocketing insurance premiums. This is forcing more patients into Medicaid or into the ranks of the uninsured, further increasing the financial pressures on providers, government and purchasers.

Commercial health insurance payments have replaced Medicare as the single largest source of hospital net patient revenue in recent years.

PHC4 data suggests Medicare was under-reimbursing by about 16% in FY05, compared to the average for all payors.

Hospital Revenues & Cost Shifting

On a statewide basis, hospitals provided a total of \$544 million in uncompensated care in FY05, up from \$461 million in FY01.

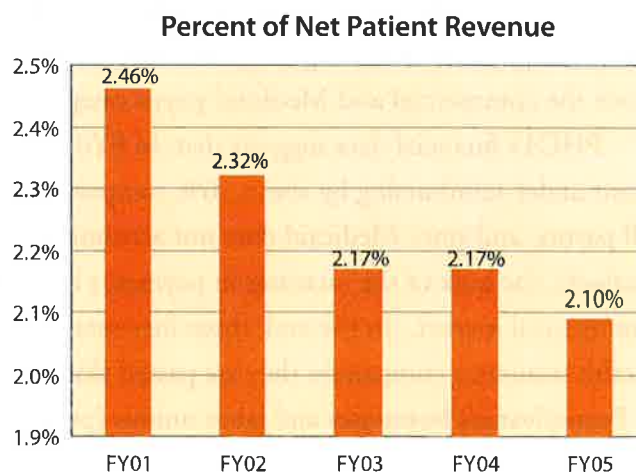
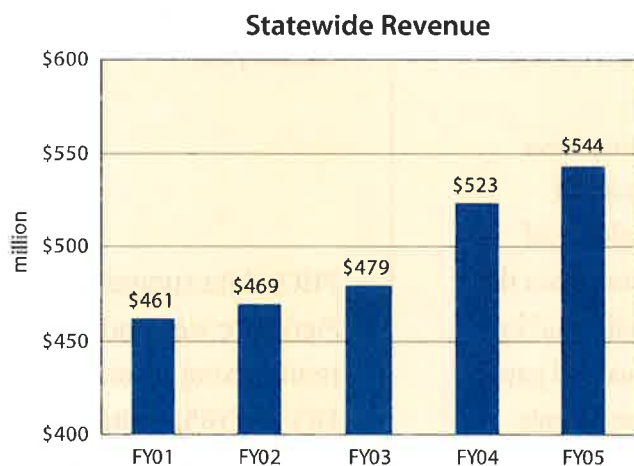
Uncompensated care as a percent of net patient revenue has dropped from 2.46% in FY01 to 2.10% in FY05.

Uncompensated Care

In FY05, Pennsylvania hospitals provided \$544 million in uncompensated care, up from \$461 million in FY01. Uncompensated care is a combination of bad debt and charity care. While the dollar value has grown, uncompensated care as a portion of all patient care has fallen. From FY01 to FY05, uncompensated care as a percent of patient revenue declined from 2.46% to 2.10%.

In FY05, the uncompensated care rates across the state were relatively uniform with 91% of hospitals reporting uncompensated care rates between 1% and 4%. Only seven of the state's 177 hospitals had an uncompensated care rate below 1%, and 12 hospitals had rates above 4%. Of these 12 hospitals with the highest rates, all were small facilities, and seven were rural.

Uncompensated Care* - Pennsylvania GAC Hospitals



Source: PHC4

*Uncompensated Care Revenue is an estimate of the revenue hospitals would have received for uncompensated care based on actual reimbursements in the respective reporting years.

Health Status

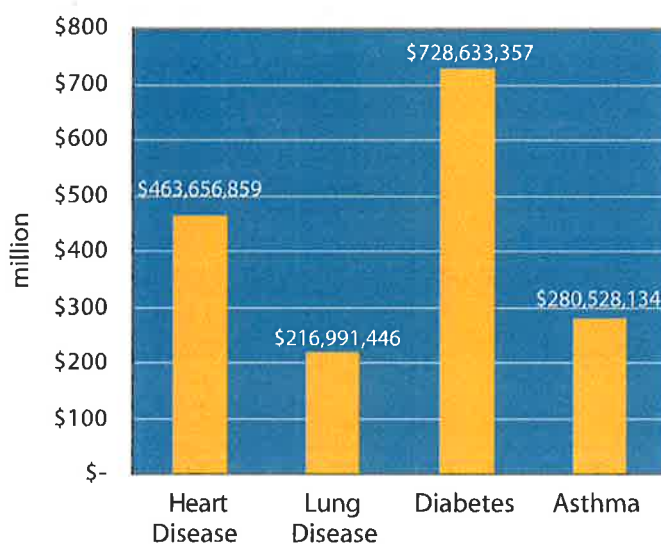
While there are countless ways to measure the health of a population, this report focuses on several of the most costly chronic conditions and modifiable personal health behaviors. This approach was taken for two reasons. The first is that 75% of health care costs in Pennsylvania can be traced to the 25% of patients with chronic diseases.⁴⁰ The second is that most of these chronic illnesses are made worse due to modifiable behaviors, such as physical inactivity, poor diets and smoking.

The human cost of chronic disease in Pennsylvania is staggering. In 2004, over 54,000 deaths in the state could be attributed to six chronic diseases: heart disease, hypertension, stroke, chronic lower respiratory disease, diabetes and asthma.⁴¹ In 2005, there were some 63,000 hospitalizations for heart disease, lung disease, diabetes and asthma, which incurred \$1.7 billion in statewide hospital charges.⁴² As these 2005 hospitalizations just take into account people under age 65, the actual numbers are undoubtedly greater.

By 2020, it is estimated that half of all Pennsylvanians will have at least one chronic condition.⁴³ It is hoped that a redoubling of disease management and preventive care efforts will impact hospitalization rates for chronic illnesses.

Seventy-five percent of health care costs in Pennsylvania can be traced to the 25% of patients with chronic conditions.

Pennsylvania Hospital Charges for Potentially Avoidable Hospitalizations* for Chronic Diseases in 2005



Source: Governor's Office of Healthcare Reform/PHC4

Note: Hospitalizations for persons 65 and over not included.

* Based on the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators (PQIs).

Hospitalizations for Chronic Conditions

	Number of Hospitalizations		Total Charges	
	1995	2005	1995	2005
Diabetes				
Short-Term Complications	4,312	5,186	\$53,335,933	\$134,911,417
Long-Term Complications	9,521	13,677	\$143,525,035	\$490,048,318
Uncontrolled Diabetes	3,681	1,975	\$22,549,328	\$28,016,909
Chronic Obstructive Pulmonary Disease	27,222	26,710	\$342,680,665	\$662,748,538
Congestive Heart Failure	58,941	61,294	\$741,074,334	\$1,704,567,339
Adult Asthma	14,231	17,231	\$122,666,845	\$330,844,325

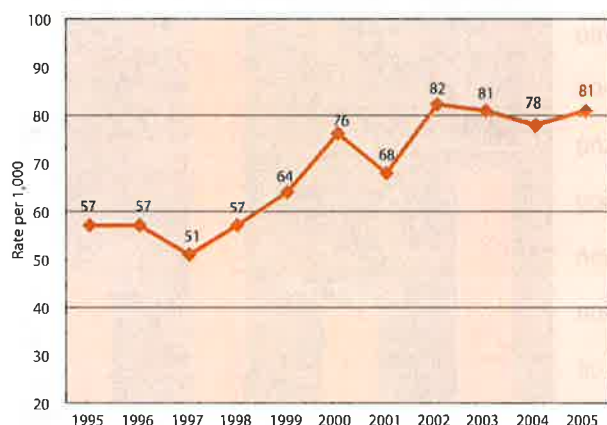
Source: PHC4

Note: Includes hospitalizations for all age groups including 65 and over.

Health Status

The number of diabetes hospitalizations increased by 19% from 1995 to 2005.

Estimated Diagnosed Diabetes Prevalence Per 1,000 Pennsylvania Adults, 1995-2005



Source: PA Department of Health, Pennsylvania Behavioral Risk Factor Surveillance System Survey

Adult asthma hospitalizations increased by 21% from 1995 to 2005.

Diabetes

Diabetes is a widespread, chronic disease caused by the inability of the body to produce or properly use insulin. It is characterized by high blood sugar levels. Diabetes predisposes people to costly complications, including heart disease, hypertension and stroke. It is the leading cause of new cases of blindness, end-stage renal failure, and non-traumatic lower extremity amputation. Despite advances in education, detection and disease management efforts, diabetes continues to be an enormous public health concern across the Commonwealth.

Approximately 81 out of every 1,000 Pennsylvania adults reported that they had been diagnosed with diabetes in 2005, compared to 57 out of 1,000 in 1995.⁴⁴ In 2005, there were 20,838 hospitalizations for uncontrolled diabetes and its short- and long-term complications in Pennsylvania; these hospitalizations accounted for 113,000 hospital days and more than \$652 million in hospital charges. In 1995, there were 17,514 diabetes hospitalizations – 19% fewer. One positive diabetes trend is that the in-hospital mortality rates for its short-term and long-term complications, as well as for uncontrolled diabetes, have all decreased from 1995 to 2005.

Asthma

Asthma is a chronic inflammatory disease of the lungs' airways which makes breathing difficult. It is the most common chronic childhood disease. Studies have shown that when patients are taught how to control their disease by following established asthma management guidelines, hospitalizations, repeat hospitalizations and emergency room visits can be decreased and quality of life improved.

In 2005, 8.1% of Pennsylvania adults reported they had been told by a health professional they have asthma and that they still have asthma.⁴⁵ In 2005, 10.1% of children (under age 18) currently had asthma based upon reporting by an adult in the household that a health professional told them the child has asthma. There were 17,231

Health Status

adult asthma hospitalizations statewide in 2005, accounting for 71,000 hospital days and more than \$330 million in hospital charges. In 1995, there were 14,231 adult asthma hospitalizations – 21% fewer.

Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is an incurable disease of the lungs. It includes chronic lung disorders that obstruct the airways or damage the air sacs deep in the lungs. The disease results from damage to the lungs over a period of years from such factors as smoking, occupational exposure (breathing chemical fumes, cotton, wood or mining dust), or from bacterial or viral infections.

From 1995 to 2005, the number of COPD hospitalizations in Pennsylvania decreased from 27,222 to 26,710. Despite this decline, total hospital charges for COPD increased from \$343 million to \$663 million during the same period.

Congestive Heart Failure

Congestive heart failure (CHF) occurs when the heart loses its ability to pump enough blood through the body. Heart failure usually worsens over time as the heart gradually loses its pumping ability and works less efficiently, resulting in high blood pressure and fluid collection in the lungs.

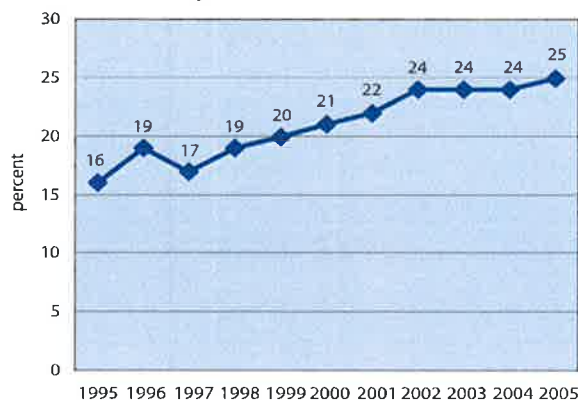
From 1995 to 2005, the number of CHF hospitalizations in Pennsylvania increased from 58,941 to 61,294. In terms of total hospital charges, CHF is one of the most expensive chronic conditions. In 2005 alone, CHF hospitalizations for all age groups incurred \$1.7 billion in charges. While the price tag for this condition has increased over the past decade, the good news is that the in-hospital mortality rate for CHF decreased by 36% from 1995 to 2005.

Overweight/Obesity & Exercise

Research has shown that health care utilization and costs increase as body mass increases.⁴⁶ Compared to a decade ago, more Pennsylvanians are obese.⁴⁷ Adults with a

In 2005, congestive heart failure, which is one of the most expensive chronic conditions, accounted for \$1.7 billion in hospital charges.

**Estimated Percent Obese
Pennsylvania Adults, 1995-2005**



Source: PA Department of Health, Pennsylvania Behavioral Risk Factor Surveillance System Survey

In 2005, one of every four Pennsylvania adults were cigarette smokers.

Body Mass Index (BMI) of 25 to 29.9 are considered overweight, and those with a BMI greater than or equal to 30 are considered obese. In 2004, \$4.1 billion of the state's medical expenditures were attributable to adult obesity.⁴⁸

In 2005, 61.9% of the state's adults were overweight or obese, and 25.3% were obese.⁴⁹ In 1995, 53.6% of adults were overweight or obese, and 16.4% were obese. One in three children in the state are overweight or at risk of becoming overweight, and the percentage of overweight Pennsylvania youth (18%) exceeds the national average (15.4%).⁵⁰

Regular physical activity can help prevent or manage a variety of chronic diseases. Yet, in both 1995 and 2005, approximately one in four Pennsylvania adults engaged in no leisure time physical activity.⁵¹

Tobacco Use

In addition to the increased health risks among individuals, smoking bears an incredible economic burden to the Commonwealth. In 2004, the health costs related to tobacco use (cigarettes, pipes, cigars, smokeless tobacco, etc.) in Pennsylvania topped \$5 billion.⁵² The prevalence estimates for current smokers did, however, fall slightly from 1995 to 2005. In 1995, approximately 24.2% of Pennsylvania adults were current smokers, compared to 23.6% in 2005.⁵³ Among the state's youth, 29.4% of high school students and 13.8% of middle school students used tobacco products in 2002.⁵⁴

Health Care Outcomes

Mortality Rates

Mortality rates are key indicators of health care quality. Since PHC4 began publicly reporting patient mortality rates for Pennsylvania hospitals in its annual *Hospital Performance Report*, in-hospital mortality rates for all conditions dropped from significantly above to significantly below the national average.⁵⁵

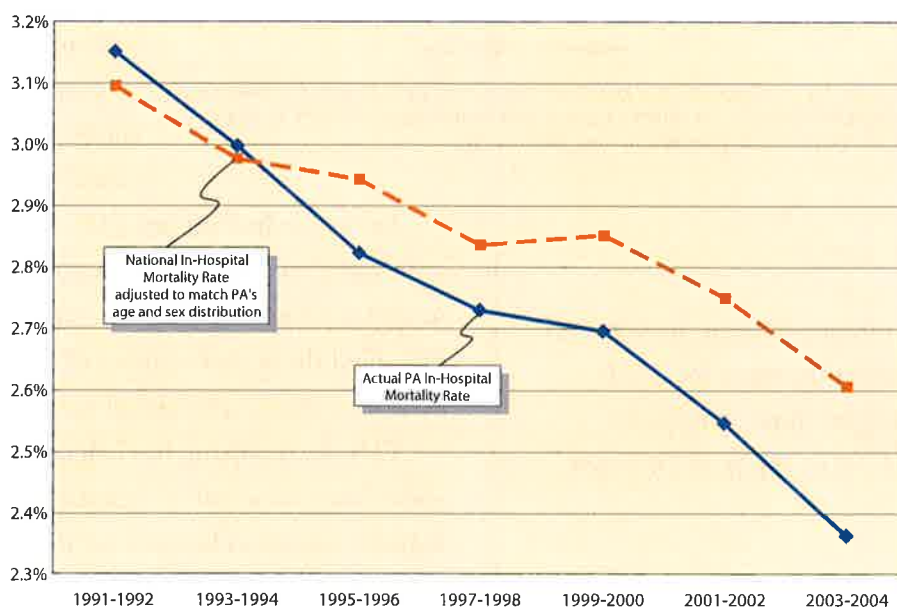
Also mirroring Pennsylvania's years of public reporting is the decline in in-hospital mortality for coronary artery bypass graft (CABG) surgery. In Pennsylvania, mortality rates for CABG have dropped 51.7% in the past 15 years. According to the most recent PHC4 cardiac surgery report, in-hospital patient mortality following CABG surgery in Pennsylvania fell from 1.98% to 1.90% between 2004 and 2005. That is the lowest mortality rate for the cardiac procedure in the 15 years since PHC4 began publicly reporting on this form of open-heart surgery.

The benefits of publicly reporting hospital performance and CABG surgery outcomes have been documented in the recent literature. In 2003,

Dr. Judith Hibbard and colleagues from the University of Oregon found that Wisconsin hospitals that publicly reported hospital performance were significantly more likely to improve quality than two comparison groups where private reporting or no reporting was done.⁵⁶ Additionally, another 2003 study found that while CABG mortality rates have dropped nationally, they have dropped more significantly in states with public reporting, like Pennsylvania and New York, or where there are aggressive hospital-based quality improvement activities,

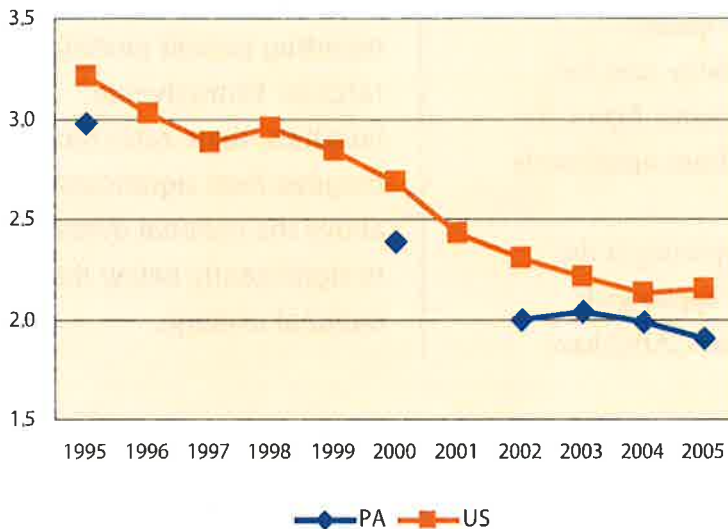
Since PHC4 began publicly reporting patient mortality rates for Pennsylvania hospitals, these rates have dropped from significantly above the national average to significantly below the national average.

In-hospital Mortality for All Conditions



Sources: (1) CDC NCHS National Hospital Discharge Survey 1991-2004; (2) PHC4

In-hospital Mortality for CABG Surgery



Sources: (1) U.S. Department of Health and Human Services' Agency for Healthcare Research and Quality. Healthcare Costs and Utilization Project (HCUP); (2) PHC4
 Note: The two study populations may differ slightly.

In Pennsylvania, in-hospital mortality rates for CABG surgery have dropped 51.7% in the past 15 years.

While CABG mortality rates have dropped nationally, they have dropped more significantly in states with public reporting, like Pennsylvania and New York.

such as the Northern New England Heart Consortium.⁵⁷

Hospital-acquired Infections

In addition to the quality improvements that hospital performance and heart surgery report cards have achieved, PHC4 is striving to achieve similar results in terms of publicly reporting hospital-acquired infections. In 2005, Pennsylvania – through PHC4 – became the first state to publicly report such infections. PHC4's initial research brief reported the results of 11,668 hospital-acquired infection cases confirmed and submitted by Pennsylvania hospitals for the year 2004.

Since this first report, PHC4 has released two additional briefs on hospital-acquired infections. Most recently, in 2006, PHC4 broke new ground by releasing the nation's first hospital-specific report that identified the actual number of hospital-acquired infections reported by Pennsylvania's individual hospitals.

PHC4's reporting has helped to change the national conversation about hospital-acquired infections. The reports received significant national attention because for the first time, actual numbers, rather than estimates or extrapolations, were made public. They have also highlighted the quality-of-care and financial consequences of hospital-acquired infections.

But perhaps the most important result of PHC4's work has been its contribution to the discussion among patients, policymakers, purchasers and medical professionals that hospital-acquired infections are not inevitable, unavoidable by-products of health care, and that many can be prevented. This has helped to lend force to the tidal wave of positive action already occurring in many health care institutions. These actions include cultural and behavioral changes that are saving numerous patient lives, improving the quality of life for countless others and saving ample health care dollars today.

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Note: Only external sources are included in the following list. Information that is not cited is PHC4-derived.

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¹¹The Hospital & Healthsystem Association of Pennsylvania. *Pennsylvania Hospitals: Partners for Economic Prosperity*. Spring 2006, at page 2.

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¹⁴Centers for Medicare & Medicaid Services, Health Expenditures by State of Provider: State-specific Tables, 1980-2004, February 2007, <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/nhestatespecific2004.pdf>

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